I hereby cortify that this correspondence is being filed via

Attorney Docket No.: 018563-Client Reference No.: AT00069.2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

ELENA PAVLOVSKAIA et al.

Filed: September 23, 2003

For: EFFICIENT DATA REPRESENTATION OF TEETH

Customer No.: 20350 Commissioner for Patents Alexandria, VA 22313-1450

P.O. Box 1450

Application No.: 10/670,162

Art Unit: 2123

Confirmation No.: 2838

Examiner: Ayal I. Sharon

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97 and §1.98

Sir

The references cited on attached forms PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner.

Copies of the foreign and non-patent documents are enclosed in compliance with the requirements of 37 CFR §1.98(a)(2).

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

The present application is a continuation application of U.S. Patent Application No. 10/241,240, filed September 10, 2002, which issued as U.S. Patent No. 6,665,570 (Attorney Docket No. 18563-004610) (cited herewith).

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As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully spenis

Reg. No. 52,182

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, Eighth Floor San Francisco, California 94111-3834 Tel: 206-467-9600 Fax: 415-576-0300 MTR mmm

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Substitute for form 1449APTO Complete if Known Application Number 10/670.162 Filing Date INFORMATION DISCLOSURE September 23, 2003 STATEMENT BY APPLICANT First Named Inventor PAVLOVSKAIA, ELENA Art Unit 2123 (Use as many sheets as necessary) Examiner Name Aval I. Sharon Attorney Docket Number 018563-004620US Sheet

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	102.	Number Kind Code ^{2 (Finance)}		Appear a care because t	Figures Appear
	AA	US-5,107,444	04-21-1992	Wu	
	AB	US-5,590,248	12-1996	Zarge et al.	
	AC	US-5,882,192	03-1999	Bergerson	
	AD	US-6,015,289	01-2000	Andreiko et al.	
	AE	US-6,044,309	03-2000	Honda	
	AF	US-6,049,743	04-2000	Baba	
45.7	AG	US-6,054,990	05-11-1999	Stewart et al.	
	AH	US-6,205,243	03-2001	Migdal et al.	
	Al	US-6,210,162	04-2001	Chishti et al.	
	AJ	US-6,212,442	04-03-2001	Andersson et al.	
	AK	US-6,217,334	04-17-2001	Hultgren	
	AL	US-8,244,861	06-12-2001	Andreiko et al.	
	AM	US-6,300,958	10-09-2001	Mallet	
	AN	US-6,315,553	11-13-2002	Sachdeva et al.	
	AO	US-6,318,994	11-2001	Chishtl et el.	
	AP	US-6,350,119	02-26-2002	Jordan et al.	
	AQ	US-6,350,120	02-26-2002	Sachdeva et al.	
	AR	US-6,369,815	04-09-2002	Celniker et el.	
	AS	US-6,371,761	04-2002	Cheang et al.	
	AT	US-6,409,504	06-2002	Jones et el.	
	AU	US-6,463,344	10-08-2002	Pavlovskaia et al.	
	AV	US-6,463,351	10-2002	Clynch	
	AW	US-6,471,512	10-2002	Sachdeva et al.	
	AX	US-6,512,994	01-28-2003	Sachdeva	
-	AY	US-6,514,074	02-2003	Chishti et al.	
	AZ	US-8,540,512	04-2003	Sachdova et al.	
	BA	US-6,602,070	08-2003	Miller et al.	
	88	US-6,633,789	10-2003	Nikolskiy et al.	
	BC	US-6,665,570	12-16-2003	Pavloskaia et al.	
	BD	US-6.688.886	02-2004	Huches et al.	

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STATEMENT BY APPLICANT	First Named Inventor	PAVLOVSKAIA, ELENA					
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Sheet	2	of	5	Attorney Docket Number	018563-004620US	_	

FOREIGN PATENT DOCUMENTS								
No.1	Foreign Patent Document		Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passaces			
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 BE	PCT	WO 98/32394		07-1998	Hultgren			

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STA	TEMENT BY A	PPLIC	ANT	First Named Inventor	PAVLOVSKAIA, ELENA	
				Art Unit	2123	
(Use as many sheets as necessary)				Examiner Name	Ayal I. Sharon	
Sheet	3	of	5	Attorney Docket Number	018563-004620US	

NON PATENT LITERATURE DOCUMENTS							
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), tills of the article (when appropriate), tills of the riem (book, magazine, journal, serial, symposium, cutalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where publisher.	T2				
	BF	"Simulating Stress on Jaws: Ansys Inc's Finite Element Analysis Software," Tooling & Production, (November 1996).					
	BG	BOHM et et., "A Survey of Curve and Surface Methods in CAGD," Computer Aided Geometric Design 1, pp. 1-80 (1984).					
	вн	BOURKE, "Coordinate System Transformation," (June 1996) retrieved from the Internet >">>> .					
	Bi	CARNAGHAN, "An Alternative to Holograms for the Portrayal of Human Teeth" 4th Int'l. Conf. on Holographic Systems, Components and Applications, pp. 228-231, Sept. 15, 1993.					
	BJ	Cyberware M15 3D Scanner. © 1998-2006, retrieved from the Internet: http://www.heedus.com/eu/cyberwere/m15.html >					
	ВК	Definition for "Gingiva," retrived from the Internet: < <http: q="gingiva" reference.com="" search="">>,</http:>					
	BL	DOYLE, "Digital Dentistry," Computer Graphics World, pp. 50-52 and 54 (October 2000).					
	ВМ	DOYLE, "Doctors Use CAD/CAM to Take the Pain out of Extensive Dental Procedures," Computer Graphics World, 5 pages total (2000).					
	BN	BN FOLEY et et., "Fundamentals of Interactive Computer Graphics", Addison-Wesley Publishing Co., 514-533.					
	во	FÜTTERLING et al., "Automated Finite Element Modeling of a Human Mandible with Dental Implants," WSGG '98 - Conference Program, retrieved from the Internet: < http://wsc.zuc.zuc/wscog6/feceres/85/trasser/86.pdf > 8 poses total.					
	8P	GAO et al., "3-D element Generation for Multi-Connected Complex Dental and Mandibular					
	BQ HOJJATIE et al., "Three-Dimensional Finite Element Analysis of Glass-Ceramic Dental Crowns," J. Biomech., 23(11):1157-1166 (1990).						
Examiner Signature		Date Considered					

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		NON PATENT LITERATURE DOCUM	ENTS					
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the a magazine, journal, serial, symposium, calalog, etc.), date, pag- and/or country where pu	ge(s), valume-is	propriate), title of the item (book, sue number(s), publisher, city	Τ²			
	BR	Talwan Area Network Conference, November 9-11, 1	MA, C.C. and CHEN, M.J., "Vertex-Based Shape Coding in Polar Coordinates for MPEG-4," Falvan Area Network Conference, November 9-11, 1998, retrieved from the Internet: http://dane/19.ndu.bdr1ANET98HOMEPAGE/paper/2b 1/2b 1.htm.					
	BS		A, C.C. et al., "Efficient Shape Coding Algorithm for Object-Oriented Video in MPEG-4," Intl. onf. on Consumer Elactronics (ICCE '99), June 22-24, 1999, pp. 174-175.					
	вт	Applications in Orthodontics, Oral Surgery and Forens	AUL at al., "Digital Documentation of Individual Human Jaw and Tooth Forms for pplications in Orthodornitics, Oral Surgery and Forensic Medicine" Proc. Of the 24th Annual onf of the IEEE Industrial Electronics Society (IECON '98), 59th, 4, 1998, pp. 2415-2418.					
	BU	Raintrea Essix, <http: defaults.html="" magazine="" www.essix.com=""> downloaded from intarnet 08/13/97 Essix™ Appliances, 7 pages total.</http:>						
	BV	REDMOND et al., "Clinical Implications of Digital Orthodontics" Am. J. Orthodont. Dentofacial Orthopodics, 117(2):240-242 (2000).						
	BW	REKOW et al., "CAD/CAM for Dental Restorations - Some of the Curious Challenges," IEEE Transactions on Biomedical Engineering, 38(4):344-345 (April 1991).						
	вх	REKOW at al., "Comparison of Three Data Acquisition Techniques for 3-D Tooth Surface Mapping," Annual International Conference of the IEEE Engineering in Medicina and Biology Sociaty, (1991) Vol. 13, No. 1, no. 344-345.						
	BY	ROGERS, D. and ADAMS, A., Mathematical Elements for Computer Graphics, MacGraw Hill Publishing Co., 2d Ed. (pp. 426-450).						
	BZ	STAWSER, D. and CELLINI, J., "Training Manual of Ball State University Cyberware Model 15, 3-D Laser Scanner," December 18, 1999 retrieved from the Internet: http://www.bsu.edu/cbssee/flowers/2/braining/trifs/fin/fsm.n.htm/						
	CA	VERSTREKEN et al., "An Image-Guided Planning System for Endosseous Oral Implants," IEEE Transactions on Medical Imaging, 17(5):842-852 (October 1998).						
	СВ	WATT et al., "Advanced Animation and Rendering Techniques Theory and Practice", Addison- Wesley Publishing Co., 101-110.						
	XIA et al., "Three-Dimensional Virtual-Reality Surgical Planning and Soft-Tissue Prediction for CC Orthognathic Surgery," IEEE Transactions on Information Technology in Biomedicine, 5(2):97-[107 (June 2001)].							
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	CD	YAMANI, S.M. et al., "A System for Human Jaw Modleing Using Intra-Oral Images," Proc. of the 20th Annual Conf. of the IEE Englg. in Medicine and Biology Society," Vol. 2, pp. 553-568 (November 1, 1998).						

Examiner Signature	Date Considered	

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